NWS F	ORM E-5	U.S. DEPARTMENT OF COMMERCE	HSA OFFICE:
		NOAA, NATIONAL WEATHER SERVICE	Grand Rapids, MI
			REPORT FOR (MONTH &YEAR):
			July 2004
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS			
			DATE:
			August 16, 2004
TO:	NATIONAL W	VEATHER SERVICE (W/OS31)	
	HYDROMETE	EOROLOGICAL INFO CENTER	SIGNATURE:
	1325 EAST-W	EST HIGHWAY, RM 13468	Daniel G. Houser, MIC
	SILVER SPRI	NG, MD 20910	Mark L. Walton, Service Hydrologist
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).			

An X inside this box indicates that no flooding occurred within this Hydrologic Service Area.

No significant river flooding occurred in the Grand Rapids Hydrologic Service Area (HSA) during the month of July.

# July Flooding

Urban and small stream flood advisories were issued for nuisance flooding during the month of July for the following counties: Jackson, Kent, Allegan, Kalamazoo, Van Buren, Ottawa, Ionia, Clinton, Ingham, Oceana, Newaygo, Montcalm, and Calhoun.

## July Precipitation

July precipitation totals were below normal at Grand Rapids and Muskegon, and above normal at Lansing, Michigan. Monthly precipitation totals at Grand Rapids, Lansing, and Muskegon, were 2.56, 3.80, and 1.71 inches, respectively. Precipitation for the month at these three sites were 1.00 inch below normal at Grand Rapids, 0.61 of an inch below normal at Muskegon, and 1.12 inches above normal at Lansing, Michigan. Rainfall was more than 150 percent of normal South and East of Lansing and only 50 percent of normal North of Muskegon. The storm track was through Southeast Lower Michigan where some areas had over 175 percent of their normal rainfall. For the year, precipitation totals at Grand Rapids, Lansing, and Muskegon were above normal, with Grand Rapids 4.63 inches above normal, Lansing 5.34 inches above normal, and Muskegon 7.14 inches above normal for the year.

#### July Temperatures

July 2004 was cool across southwest lower Michigan, with temperatures 1 to 2 degrees below normal. Temperatures for the month of July were below normal at Grand Rapids, Lansing, and Muskegon, averaging 0.9, 1.3, and 1.5 degrees below normal, respectively.

## July River Levels

River levels were near to above normal during the month of July. All rivers stayed below flood stage during the month of July.

# Hydrologic Products issued this month:

- 1 Hydrologic Outlook (ARBESFGRR) was issued
- 18 Flood Statements (ARBFLSGRR) were issued
- 5 Hydrologic Statements (ARBRVSGRR) were issued
- 31 Hydrologic Summary's (ARBRVAGRR) were issued
- 31 Daily River and Lake Summary's (ARBRVDGRR) were issued

cc: